



# OSPREY *Newsletter*

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## Taiwan - Expanding Market for Osprey Products

Derek Lin was a sales manager in the Nonwovens Industry in Taiwan for ten years. He felt that nonwovens was a challenging industry with excellent potential and committed himself to the study of all aspects of nonwovens. When he started Formosa Nawonsuith Corporation 4-1/2 years ago, he had developed expertise in every aspect of the industry—from the wide variety of raw materials available to a thorough working knowledge of equipment and systems used in manufacturing the finished product. Derek's goal to understand every aspect of the industry has resulted in FNC's somewhat unique position in the nonwoven's industry in Taiwan. FNC specializes in nonwovens and hygiene products and is able to provide complete service and information for their customers. They can assist a manufacturer in procuring raw materials, marketing finished products, deciding what equipment is needed and where that equipment is best acquired.

FNC's company philosophy is "teamwork" and Derek is very proud of that team. James Huang is a chemical engineer who worked in nonwovens with Derek before the creation of FNC. J.F. Jwo is a mechanical engineer and studied at the #1 university in Taiwan. George Hsheish was purchasing manager in the industry before joining FNC and Lisa Wong was a French student before she joined the team.

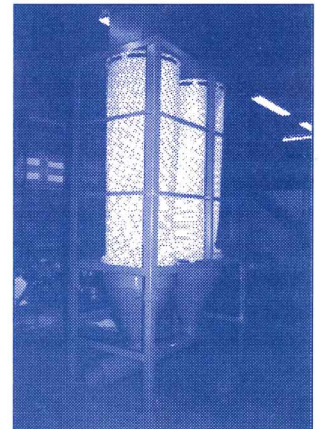
Derek chose the name of his company not by chance. Nawonsuith has two meanings in Chinese, one is "specialize in nonwovens," the other is translated something like, "able to overcome any obstacle," "formidable," "powerful." Whatever the translation, the end result of Derek's efforts and of Formosa Nawonsuith

Corporation can most certainly be called "dynamic." When your business needs and/or travels include Taiwan, give FNC a call at 886-2-597-4511; fax is 886-2-597-1203. ✉

## Automate Your Manual Filters

by Martin A. Price

Osprey's Modular Lint Filter now has a new option, a Pneumatic Purge Hopper. Those MLFs which sit on legs (E and SG types) can easily be retrofitted with one or more Purge Hoppers so that the material collected can be evacuated on a timed basis to a central collection point, thereby minimizing cost, horsepower, and the quantity of air required. An excellent example would be a Textile Finishing Line where several MLFs are serving shears, nappers, sanders, etc. The bottom of each MLF would be fitted with one or more Purge Hoppers and the flock would be removed on a programmed basis to a small collector located over a baler or a compactor in a remote area of the Plant. Contact us for further details regarding new installations or retrofitting existing installations. ✉



See us at

**IDEA90**  
THE INTERNATIONAL NONWOVENS  
CONFERENCE AND EXPOSITION

September 25-27, 1990  
Washington Convention Center  
Washington, DC, USA

Osprey will be exhibiting IDEA 90 in Washington, DC. The show is Sept. 25-27, 1990. Many of our sales staff will be attending and will have information on S.A.P. Extraction and Final Filtration, as well as some new developments in the world of plastics. Our booth number is 1216. Our staff will be staying at the Comfort Inn Downtown. ✉



# Fan Selection for High Altitude, Negative Pressure and High Temperature

By Robert L. Kunz, Steven K. Smith, and Natalie Trawick

When selecting a fan for a particular application, most computer programs will take altitude, negative pressure, and temperature into account, but all fan catalog ratings are based on standard air at .075 pounds per cubic foot. This means the altitude is at sea level, there is positive pressure, and the temperature is 70° F. For a difference in one of these factors certain corrections are required.

**Correction:** In the last issue we misprinted the new telephone number for Osprey Corporation, Ltd. in Whitstable, Kent. The correct number is 44(0227) 770979.

When selecting a fan without the use of a computer program the following formulas will be useful.

An Example: A fan in Mexico City (altitude 7,400 feet above sea level), at a negative pressure of -28" (W.C.), and operating in a 120° F environment.

### A. Altitude:

Correction for altitude can be obtained from an Altitude Density Table. See Chart.

**ALTITUDE—DENSITY TABLE FOR AIR**  
Standard Air at 0 Altitude and 29.92" Bar—1.00  
Altitudes In Feet Constant Temperature—70° F

Alt	Rel Den	Bar	Alt	Rel Den	Bar	Alt	Rel Den	Bar
0	1.00	29.92	1500	0.947	28.33	3000	0.896	26.81
100	0.996	29.81	1600	0.944	28.23	3200	0.889	26.61
200	0.993	29.70	1700	0.940	28.13	3400	0.883	26.42
300	0.989	29.60	1800	0.936	28.02	3600	0.877	26.23
400	0.985	29.49	1900	0.933	27.92	3800	0.870	26.03
500	0.981	29.38	2000	0.930	27.82	4000	0.864	25.84
600	0.978	29.28	2100	0.926	27.72	4200	0.858	25.65
700	0.975	29.17	2200	0.923	27.62	4400	0.851	25.46
800	0.971	29.06	2300	0.920	27.52	4600	0.845	25.27
900	0.967	28.96	2400	0.916	27.41	4800	0.839	25.08
1000	0.964	28.85	2500	0.913	27.31	5000	0.832	24.89
1100	0.960	28.75	2600	0.909	27.21	5200	0.825	24.71
1200	0.957	28.65	2700	0.906	27.11	5400	0.819	24.52
1300	0.954	28.54	2800	0.903	27.01	5600	0.813	24.34
1400	0.951	28.44	2900	0.900	26.91	5800	0.807	24.16

Our fan in Mexico City: 7,400 feet above sea level = .76 Relative Density

### B. Negative Pressure:

The formula for computing relative density as it relates to negative pressure is based on an absolute vacuum formula:

$$\frac{407.5 - \text{negative S.P.}}{407.5} = \text{relative density}$$

Our fan in Mexico City:  
 $\frac{407.5 - 28}{407.5} = .9313 \text{ R.D.}$

### C. Temperature:

To correct for temperature use the formula:

$$\frac{460 + \text{ambient air}}{460 + \text{operational temp.}} = \text{R.D.}$$

Our fan in Mexico City:  
 $\frac{460 + 70^\circ \text{ F}}{460 + 120^\circ \text{ F}} = .914 \text{ R.D.}$

The formula for determining Actual Density:

Standard Air Density x (corrected altitude x corrected negative pressure x corrected temperature) = Actual Density

Our fan in Mexico City:

Actual density =  
.075 x (.76 x .93 x .914) = .0485 lbs/cu. ft.

The following formula gives corrected static pressure at the actual density, which is used in reading a standard fan table.

$$\text{S.P. x standard air} = \text{Fan Table S.P. Design Actual Density}$$

Our Fan in Mexico City:

$$\frac{-28 \times .075}{.0485} = 43.30'' \text{ S.P. from a Fan Table}$$

If selecting a fan from a standard fan table using any of the above three factors, select base on the actual CFM required at the higher equivalent static pressure. For instance, 5,000 CFM @ 43.30" S.P. and the chart indicates 50 BHP. Rotate the fan wheel at the rpm shown and correct the horsepower by the density factor.

For example,

$$\text{Chart BHP} \times \frac{\text{Actual Density}}{\text{Standard Density}} = \text{Actual BHP}$$

Our fan in Mexico City:

$$50 \text{ BHP} \times \frac{.0485}{.075} = 32 \text{ BHP}$$

High temperature corrections are very similar to these altitude corrections. For additional information contact Osprey Sales Office.

## Guidelines for Soft Disposable Product Testing

To get the most accurate and efficient results from our Product Testing Facility for Osprey Fluff Reclaim Systems, send us the following information along with the product to be tested:

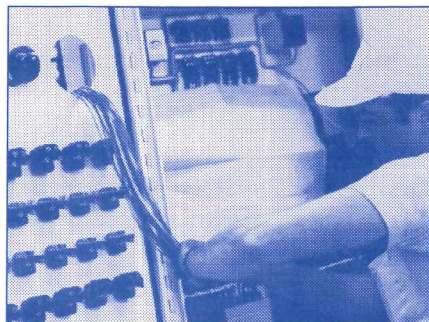
1. Scrap (poly, tissue) weight
2. Fluff weight
3. S.A.P. weight



## Osprey Electrical Department

Osprey Control Panels are built by the Osprey Electrical Department, headed by John Bellavance. Osprey's Electrical Department has built an average of 250 panels per year over the last five years. Each Osprey panel is designed on an Auto CAD System and is custom built under strict standards determined by NEMA (National Electrical Manufacturers Association), NEC (National Electrical Control), and IEC (International Electrical Code). Built with top of the line components and microprocessors, Osprey's Control Panels are extensively tested to ensure that each element is performing precisely.

John came to Osprey 7 years ago after 15 years in the Industrial Electrical field. He is married and has a four-year-old daughter with another child due any day. John is a member of the Sports Car Club of America and races fre-



Electrical Department Mark Nabors

quently. He has a few trophies to prove it!

Mike Cates and Mark Nabors make up the rest of Osprey's Electrical Department. Mike and Mark have both been building panels at Osprey for five years. These two spend a good deal of their outside time on motorcycles or fishing.

The goal of Osprey's Electrical Department is not only to build panels that are correct and in perfect working order, but panels that are aesthetically pleasing as well. They feel it is essential for Osprey's panels to be as uncomplicated as possible. Detail schematics and operational manuals are included in each shipment, because understanding the operation of the panels saves time and money. Osprey customers have found that most electrical problems can be easily resolved by consulting the manuals.

Experienced in handling multiple voltages, the Electrical Department has built panels for Osprey equipment on several continents. They are familiar with the wide range of electrical requirements around the globe, and appreciate the challenge of meeting Osprey's customers' needs all over the world. 🐦

## Gas Scrubber - Osprey UK

Osprey UK has introduced the Universal Gas Scrubber, designed to remove dust and fumes from a wide range of gases. It can cope with high-pressure, high-temperature, and corrosive gases and has a filtration efficiency of better than 95%, even for fine particles down to 2 microns. Contact the Osprey UK office in Whitstable, Kent for more information. 🐦



Electrical Department Mike Cates & John Bellavance

## Osprey Goes Dutch

Gimbrair b.v. is now working with Osprey for sales of equipment in Holland. Established more than 25 years ago, Gimbrair has specialized in air handling, especially in the manufacture/assembly of dust collection systems. They have worked in all kinds of industries, including hygienic paper converting, wood working, food, and textiles. Gimbrair is located in a modern building with a workshop that covers 4,000 m<sup>2</sup> in the northern industrial section of Tilburg. Their address is Gimbrair b.v., Simon de Cockstraat 4, 5049 AW Tilburg, Postbus 5074, 5004 EB Tilburg, Holland, tel 013-630730, fax 013-630015. 🐦

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*If you're interested in living a longer life, the Mayo Clinic Health Letter recommends the following five tips for both men and women:*

1. Don't smoke.
  2. Control your blood cholesterol level by replacing fatty foods in your diet with whole grains, fresh fruits and vegetables.
  3. Exercise regularly.
  4. Maintain a healthy weight.
  5. If you drink, do so in moderation.
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*See us at*

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September 25-27, 1990  
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**Booth #1216**



## Drum Forming?

It's the latest thing and most soft disposables converters are rushing to jump on the band wagon.

The use of a cylinder type forming screen rather than the conventional belt (flat) type is the most simple explanation of drum forming. This is where "simple" ends. Drum forming eliminates belt tracking and can radically increase speeds. Most drum formers allow 3-D pads or cavity forming. This "cavity" is a shaped depression in the screen surface of the cylinder/drum.

This is all great but there is a price to pay! Increased speeds require very quick fluff positioning which translates into higher vacuums and air quantities. Vacuum and volume will increase from 30% to 100% depending on your present condition. Osprey has several years experience with these cavity drum formers and can work with you on these systems.

Contact Atlanta Sales for additional technical data. 

## Dusty? How Dusty?

More and more Osprey customers want to know the answer to this question. Osprey technicians have the instruments and skills to give you the precise answer. Particulate (dust) level readings can be reported in milligrams per M<sup>3</sup> for total dust and/or respirable (breathable) dust.

Contact Marty Price, Osprey Atlanta for details. 

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## What's New?

By Martin A. Price

### Product Development


Osprey has acquired two **ROTARY CUTTERS** for our R&D Center. One is a small low speed cutter used mainly for plastic. The other is an 18" wide 30 H.P. unit currently being used for plastic, paper, pulp, etc. For further information contact our Sales Dept.

Use of Osprey Volumetric Feeder, **MODEL VF-12**, for blending or spraying of fibers into forming chambers and air streams for multi-blended fibrous pads.

Osprey **FINAL FILTER KIT** for the Rotary Drum Filter is looking like a real success with filtering capability down to .3 micron.

We have a specialized **TRIM VENTURI EJECTOR** for hard-to-handle edge trim. Contact us for a trial run on your product.

We've made a change on the latest models of the **VOLUMETRIC FEEDER** which enables the use of a remote potentiometer ("pot"). We have also incorporated a "speed reference" meter which can measure your adjustments. This kit, for most applications, will be less than \$300. For additional information, please contact our Parts Department.

**VERTICAL SURGE HOPPERS** in capacities of 100 to 1,000 cubic ft. mainly used for the Plastic Industry, contain unique bottom discharge/metering devices. Flat bottom design prevents bridging or packing of material. 



**OSPREY CORPORATION**

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U.S. Postage  
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